

## CLAIMS

1. A method for detecting intrusions in a wireless network, comprising the steps of:  
researching and defining normal network behavior with the intent of ascertaining user  
5 and temporal patterns;  
researching potential sources of information that will lead to the detection and  
classification of potentially intrusive events;  
establishing a knowledge base of anomalous network activity that will form the  
foundation for classifying potentially intrusive events;  
10 analyzing and evaluating the knowledge base to create an attack model; and  
utilizing the attack model to provide an adaptive response to intrusions in the wireless  
network.
2. A method according to claim 1 which further includes augmenting the researching  
15 step by collecting real-world information concerning intrusive events and updating the  
knowledge base
3. A method according to claim 2 which further includes developing a recovery  
model to recover from an intrusion of the wireless network.
- 20 4. A method according to claim 1 wherein the wireless network is the Tactical  
Internet.
5. A method according to claim 1 wherein the wireless network is a Situation  
25 Assessment Data Link (SADL).
6. A method according to claim 1 wherein the wireless network is a tactical data link.
7. A method according to claim 1 wherein the tactical data link is a Link-16 type  
30 tactical data link and its logical extensions.

8. A method according to claim 1 wherein the tactical data link is a Link-11 type tactical data link and its logical extensions.

9. A method according to claim 1 wherein the tactical data link is a Link-22 type tactical data link

10. A method according to claim 1 wherein the knowledge base includes data relating to suspicious events including passive eavesdropping, deception and denial of service.

11. A method according to claim 8 wherein the attack model is utilized to generate signatures of suspicious events.

12. A method according to claim 8 wherein the attack model is utilized to generate recommendations regarding the design of a wireless network.

13. A method for detecting intrusions in a wireless network, comprising the steps of: researching and defining normal network behavior with the intent of ascertaining user and temporal patterns;

researching potential sources of information that will lead to the detection and classification of potentially intrusive events;

augmenting the researching step by collecting real-world information concerning intrusive events and updating the knowledge base;

establishing a knowledge base of anomalous network activity that will form the foundation for classifying potentially intrusive events;

analyzing and evaluating the knowledge base to create an attack model;

utilizing the attack model to provide an adaptive response to intrusions in the wireless network; and

developing a recovery model to recover from an intrusion of the wireless network.

14. A method for detecting intrusions in the Tactical Internet, comprising the steps of:

researching and defining normal network behavior with the intent of ascertaining user and temporal patterns;

5 researching potential sources of information that will lead to the detection and classification of potentially intrusive events;

establishing a knowledge base of anomalous network activity that will form the foundation for classifying potentially intrusive events, wherein the knowledge base includes data relating to suspicious events including passive eavesdropping, deception and denial of

10 service;

augmenting the researching step by collecting real-world information concerning intrusive events and updating the knowledge base;

analyzing and evaluating the knowledge base to create an IW attack model;

utilizing the IW attack model to provide an adaptive response to intrusions in the

15 Tactical Internet; and

developing a recovery model to recover from an intrusion of the Tactical Internet.

15. A method for detecting intrusions in a RF based tactical data link, comprising the steps of:

20 researching and defining normal network behavior with the intent of ascertaining user and temporal patterns;

researching potential sources of information that will lead to the detection and classification of potentially intrusive events;

25 establishing a knowledge base of anomalous network activity that will form the foundation for classifying potentially intrusive events, wherein the knowledge base includes data relating to suspicious events including passive eavesdropping, deception and denial of service;

augmenting the researching step by collecting real-world information concerning intrusive events and updating the knowledge base;

30 analyzing and evaluating the knowledge base to create an IW attack model;

utilizing the IW attack model to provide an adaptive response to intrusions in the RF based tactical data link; and

developing a recovery model to recover from an intrusion of the RF based tactical data link.

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